

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

Form PTO-1449

"PATENT"

Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

**LIST OF PRIOR ART CITED BY APPLICANT**

Attorney's Docket No. 230208

Applicants: Carmelo Batista and Salomon Alalu

Serial No. \_\_\_\_\_ Filing Date: \_\_\_\_\_

Group: \_\_\_\_\_

**U.S. PATENT DOCUMENTS**

Document Number	Date	Name	Class/SubClass	Filing Date
5,452,676	September 26, 1995	Paul A. Fiore	114/291	July 5, 1994
5,983,823	November 16, 1999	Darris E. Allison	114/271	June 22, 1998
5,476,061	December 19, 1995	T. Robert Ackerbloom	114/290	Oct. 3, 1994

**FOREIGN PATENT DOCUMENTS**

Document Number	Date	Country	Class/SubClass	Translation Yes No
-----------------	------	---------	----------------	-----------------------

**OTHER PRIOR ART (Incl. Author, Title, Date, Pertinent Pages, Etc.)**

Examiner: \_\_\_\_\_

Date Considered: \_\_\_\_\_

## DISCLOSURE DOCUMENT

**Title: "LEVITATION AND STABILIZING HULL SYSTEM"**

**Inventors: Carmelo Batista and Salomon Alalu**

**Attorney Docket No. 230208**

The present invention relates to levitation and stabilizing hull system for boats, and more particularly, to a system of steps, channels and strakes around the underside of the hull. Such combination results in a better performance and more stabilizing boat.

It is one of the main objects of the present invention to provide a system for boats with a combination of steps, channels and strakes around the underside of the hull resulting in an optimal stabilizing boat.

It is another object of this invention to provide a hull system for boats that allows to the users an optimal trim leverage and a stabilizer handling of the boat.

It is still another object of the present invention to provide a minimum transversal oscillation movement and a minimum lateral displacement of the boat while sailing.

It is yet another object of this invention to provide such a device that is inexpensive to manufacture and maintain while retaining its effectiveness.

Further objects of the invention will be brought out in the following part of the specification, wherein detailed description is for the purpose of fully disclosing the invention without placing limitations thereon.

Many designs for boat hulls have been developed in the past. None of them, however, includes such combination of steps, channels and strakes around the underside of the hull that permit the boat levitate while is kept

stabilized. In the present invention, the longitudinal angles of the strakes are in a disposition with respect to the steps that provide an optimal circulation of the air through the bottom.

None of the prior art includes a system that provides a stabilized and balanced hull, therefore, requiring fewer horsepower to propel the boat through the water. In fact, in the prior art there is not a boat able to keep a straight displacement line in the water such as the present invention. In the invention object of the present application, a channel next and in a parallel relationship with respect to the transversal steps allows elevated drive heights keeping the boat stabilized and with more trim leverage, which allows the user to sail at any given speed with optimum performance. Also, the present invention provides at least one pair of strikes in an angle with respect to the hull V-shape bottom surface and a horizontal longitudinal section next to each strike. Such combination provides an optimal stability and makes the displacement line of the boat is straight. Such combination also provides these advantages whether the boat is anchored or high-speed running.

Referring now to the drawings, where the present invention is generally referred to with numeral 10, it can be observed that it basically includes hull underside 20, steps 40 and 60 and strakes 70; 80; 90; 70'; 80' and 90', as seen in figure 1.

Hull underside 20 has a substantially V-shape cross-section and includes bow section 22, amidships section 24 and stern section 26, chine 27 and keel 28, as best seen in figure 2. Sections 22; 24 and 26 are defined by steps 40 and 60.

Steps 40 and 60 have channels 42 and 62, respectively, running adjacent and in a parallel relationship with respect to steps 40 and 60, as seen in figures 1 and 2. The water flowing along hull underside 20 goes to step 40 (and 60) and creates a current inside channel 42 (and 62) that lift the boat, as best seen in figure 3. In the prior art the water goes to the step and continue flowing to the next step, as best seen in figure 3a. Steps 40 and 60

have a V-shape open in the direction of the bow when they are seen from the bottom, as in figure 1. This shape is intended to trap the air coming from the sides of the boat and direct it into the keel 28 direction lifting the boat, as best seen in figure 4. Part of the air trapped in channel 42 (and 44) will escape into section 24 (and 26).

Strakes 70; 80; 70' and 80' extend longitudinally from bow to stern interrupted by steps 40 and 60. Strakes 90 and 90' extend longitudinally from step 60 to the bow interrupted by step 40. Strakes 70 and 70' define keel 28. In section 22 strakes 70; 80; 90; 70'; 80' and 90' run longitudinally into the bow to converge in keel 28. Strakes 70; 80; 70' and 80' have a substantially triangular cross-section with one of the sides coinciding with the surface of hull underside 20. Strakes 70; 80; 90; 70'; 80' and 90' have horizontal surfaces 74; 84; 94; 74'; 84' and 94', respectively, longitudinally and inwardly adjacent to strakes 70; 80; 90; 70'; 80' and 90'. The disposition of strakes 70; 80; 90; 70'; 80' and 90' provide stability to the boat even at high speed when the water level is under chine 27 and also make the boat running in a straight sailing line. Horizontal surfaces 74; 84; 94; 74'; 84' and 94' provide oscillation stability to the boat at any speed. The water flowing along hull underside 20 tends to go up and then hit surfaces 74; 84; 94; 74'; 84' making the boat lift while is not displaced transversally, as shown in figure 5. In the prior art shown in figure 5a, the strikes provide certain oscillation stability while the boat is anchored, but when the boat is sailing and the planning line is under the chine, there is not stability and also the boat is displaced to the sides making a S-shape sailing line. Also, in the present invention front ends 72; 82; 92; 72'; 82' and 92' of portion 24 and front ends 74; 84; 94; 74'; 84' and 94' of portion 26 have are not squares to facilitate the flowing of certain amount of air trapped in channels 42 and 62 to portions 24 and 26, respectively.

The foregoing description conveys the best understanding of the objectives and advantages of the present invention. Different embodiments may be made of the inventive concept of this invention. It is to be understood that all matter disclosed herein is to be interpreted merely as illustrative, and not in a limiting sense.

## Disclosure Document Deposit Request

**Mail to:**

Box DD  
Assistant Commissioner for Patents  
Washington, DC 20231

Inventor(s): Carmelo Batista and Salomon Alalu

Title of Invention: LEVITATION AND STABILIZING HULL SYSTEM

Enclosed is a disclosure of the above-titled invention consisting of 3 sheets of description and 7 sheets of drawings. A check or money order in the amount of \$10.00 is enclosed to cover the fee (37 CFR 1.21(c)).

*\* SEE ENCLOSED  
CHARGE AUTHORIZATION*

The undersigned, being a named inventor of the disclosed invention, requests that the enclosed papers be accepted under the Disclosure Document Program, and that they be preserved for a period of two years.

Signature of Inventor

*Carmelo R. Batista*

Address

4542 W 15 Ave.

Typed or printed name

Carmelo R. Batista

Date

9/2/03

City, State, Zip

Hialeah, FL 33012

### NOTICE TO INVENTORS

It should be clearly understood that a Disclosure Document is not a patent application, nor will its receipt date in any way become the effective filing date of a later filed patent application. A Disclosure Document may be relied upon only as evidence of conception of an invention and a patent application should be diligently filed if patent protection is desired.

Your Disclosure Document will be retained for two years after the date it was received by the Patent and Trademark Office (PTO) and will be destroyed thereafter unless it is referred to in a related patent application filed within the two-year period. The Disclosure Document may be referred to by way of a letter of transmittal in a new patent application or by a separate letter filed in a pending application. Unless it is desired to have the PTO retain the Disclosure Document beyond the two-year period, it is not required that it be referred to in the patent application.

The two-year retention period should not be considered to be a "grace period" during which the inventor can wait to file his/her patent application without possible loss of benefits. It must be recognized that in establishing priority of invention an affidavit or testimony referring to a Disclosure Document must usually also establish diligence in completing the invention or in filing the patent application since the filing of the Disclosure Document.

If you are not familiar with what is considered to be "diligence in completing the invention" or "reduction to practice" under the patent law or if you have other questions about patent matters, you are advised to consult with an attorney or agent registered to practice before the PTO. The publication, *Attorneys and Agents Registered to Practice Before the United States Patent and Trademark Office*, is available from the Superintendent of Documents, Washington, DC 20402. Patent attorneys and agents are also listed in the telephone directory of most major cities. Also, many large cities have associations of patent attorneys which may be consulted.

You are also reminded that any public use or sale in the United States or publication of your invention anywhere in the world more than one year prior to the filing of a patent application on that invention will prohibit the granting of a patent on it.

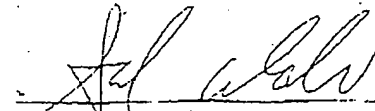
Disclosures of inventions which have been understood and witnessed by persons and/or notarized are other examples of evidence which may also be used to establish priority.

There is a nationwide network of Patent and Trademark Depository Libraries (PTDLs), which have collections of patents and patent-related reference materials available to the public, including automated access to PTO databases. Publications such as *General Information Concerning Patents* are available at the PTDLs, as well as the PTO's Web site at [www.uspto.gov](http://www.uspto.gov). To find out the location of the PTDL closest to you, please consult the complete listing of all PTDLs that appears on the PTO's Web site or in every issue of the Official Gazette, or call the PTO's General Information Services at 800-PTO-9199 (800-786-9199) or 703-308-HELP (703-308-4357). To ensure assistance from a PTDL staff member, you may wish to contact a PTDL prior to visiting to learn about its collections, services, and hours.

Additional Inventors for the Disclosure Document Deposit Request.

Second Inventor: Salomon Alalu

Title of Invention: LEVITATION AND STABILIZING HULL SYSTEM

  
Signature of Inventor

2210 N.E. 203 Terrace  
Address

Salomon Alalu  
Typed or printed name

Aventura, Florida 33180

9/2/03  
Date

City, State, Zip